



March 29, 2017

Tom Moe USS Corporation P.O. Box 417 8771 Park Ridge Dr Mountain Iron, MN 55768

RE: Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Dear Tom Moe:

Enclosed are the analytical results for sample(s) received by the laboratory on March 22, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melisa M Woods

Massi Wirds

melisa.woods@pacelabs.com

(218)742-1042 Project Manager

Enclosures

cc: Cory Hertling Terri Sabetti, NTS







CERTIFICATIONS

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792

Alaska Certification UST-107 Alaska Certification UST-107 California Certification #2973 California Certification #2973

Nevada DNR #MN010842015-1 Alaska Certification #MN01084

Arizona Department of Health Certification #AZ0785

Minnesota Dept of Health Certification #: 027-137-445

North Dakota Certification: # R-203 Wisconsin DNR Certification #: 998027470 WA Department of Ecology Lab ID# C1007

California Certification #2973

Oklahoma Department of Environmental Quality



SAMPLE SUMMARY

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1284584001	WS-002 Scrubber Make-Up	Water	03/22/17 09:00	03/22/17 14:55
1284584002	WS-003 Thickner Overflow	Water	03/22/17 08:50	03/22/17 14:55



SAMPLE ANALYTE COUNT

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1284584001	WS-002 Scrubber Make-Up	EPA 200.7	MAR	3	PASI-V
		EPA 300.0	DMB	1	PASI-V
1284584002	WS-003 Thickner Overflow	EPA 200.7	MAR	3	PASI-V
		EPA 300.0	DMB	1	PASI-V



ANALYTICAL RESULTS

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Date: 03/29/2017 12:43 PM

Sample: WS-002 Scrubber Make	e-Up Lab ID:	1284584001	Collecte	d: 03/22/17	7 09:00	Received: 03/	22/17 14:55 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
200.7 MET ICP, Lab Filtered	Analytical	Method: EPA	200.7 Prepa	ration Meth	nod: EP	A 200.7			
Calcium, Dissolved	108	mg/L	5.0	0.058	10	03/24/17 11:14 03/28/17 1		7440-70-2	
Magnesium, Dissolved	231	mg/L	5.0	0.64	10	03/24/17 11:14	03/28/17 14:27	7439-95-4	
Total Hardness, Dissolved	1220	mg/L	100	2.8	10	03/24/17 11:14	03/28/17 14:27		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0						
Sulfate	865	mg/L	20.0	10.0	10		03/25/17 06:15	14808-79-8	
Sample: WS-003 Thickner Overf	flow Lab ID:	1284584002	Collecte	d: 03/22/17	7 08:50	Received: 03/	22/17 14:55 Ma	atrix: Water	
Sample: WS-003 Thickner Overl	flow Lab ID:	1284584002	Collected Report	d: 03/22/17	7 08:50	Received: 03/	22/17 14:55 Ma	atrix: Water	
Sample: WS-003 Thickner Overf	flow Lab ID:	1284584002 Units		d: 03/22/17	7 08:50 DF	Received: 03/	22/17 14:55 Ma	cAS No.	Qual
Parameters	Results		Report Limit	MDL	DF	Prepared			Qual
Parameters 200.7 MET ICP, Lab Filtered	Results	Units	Report Limit	MDL	DF	Prepared		CAS No.	Qual
Parameters 200.7 MET ICP, Lab Filtered Calcium, Dissolved	Results	Units Method: EPA	Report Limit 200.7 Prepa	MDL tration Meth	DF nod: EP	Prepared A 200.7	Analyzed	CAS No. 7440-70-2	Qual
Parameters 200.7 MET ICP, Lab Filtered Calcium, Dissolved Magnesium, Dissolved	Results Analytical	Units Method: EPA :	Report Limit 200.7 Prepa	MDL tration Meth	DF nod: EP/	Prepared A 200.7 03/24/17 11:14	Analyzed 03/28/17 14:30	CAS No. 7440-70-2	Qual
·	Analytical 1010 71.4 2820	Units Method: EPA : mg/L mg/L	Report Limit 200.7 Prepa 5.0 5.0 100	MDL tration Meth 0.058 0.64	DF nod: EP/ 10 10	Prepared A 200.7 03/24/17 11:14 03/24/17 11:14	Analyzed 03/28/17 14:30 03/28/17 14:30	CAS No. 7440-70-2	Qual



QUALITY CONTROL DATA

USS MinnTac NPDES-LINE 3 Wkly Project:

Pace Project No.: 1284584

QC Batch: 109087 Analysis Method:

EPA 200.7

QC Batch Method: EPA 200.7 Analysis Description:

200.7 MET Dissolved

MDL

99

98

Associated Lab Samples:

1284584001, 1284584002

METHOD BLANK: 431607 Matrix: Water

Associated Lab Samples:

1284584001, 1284584002

Blank

Reporting

Parameter Units Calcium, Dissolved mg/L Result ND Limit 0.50

Analyzed 03/28/17 13:43 Qualifiers

Magnesium, Dissolved

Calcium, Dissolved

Calcium, Dissolved

Magnesium, Dissolved

Magnesium, Dissolved

Parameter

mg/L

Units

mg/L

mg/L

ND

0.50

LCS

0.0058 0.064 03/28/17 13:43

LABORATORY CONTROL SAMPLE:

Parameter

431608

Units

mg/L

mg/L

Spike Conc. 50

LCS Result % Rec 49.3 49.1

% Rec Limits 85-115

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

431609

431610

50

MSD

MS MSD % Rec

85-115

% Rec Limits **RPD**

RPD 20

Max

Qual

39.4

18.9

MSD MS 1284560004 Spike Spike Result Conc. Conc.

50

50

50

MS Result Result 50 88.1

66.8

% Rec 87.6 98 67.4 96

97 70-130 97 70-130

20

Date: 03/29/2017 12:43 PM

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Date: 03/29/2017 12:43 PM

QC Batch: 109138 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 1284584001, 1284584002

METHOD BLANK: 431830 Matrix: Water

Associated Lab Samples: 1284584001, 1284584002

ParameterUnitsBlank Reporting ResultReporting LimitMDLAnalyzedQualifiersSulfatemg/LND2.01.003/25/17 03:06

LABORATORY CONTROL SAMPLE: 431831

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Sulfate mg/L 50 50.0 100 90-110

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 431832 431833 MS MSD

1284656002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Sulfate 500 90-110 0 20 mg/L 28.9 500 530 530 100 100

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 431834 431835

MS MSD 1284586001 MS MSD MS MSD Spike Spike % Rec Max % Rec Limits RPD Parameter Units Result Conc. Conc. Result Result % Rec RPD Qual Sulfate 208 100 100 305 305 97 97 90-110 0 20 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

Date: 03/29/2017 12:43 PM

PASI-V Pace Analytical Services - Virginia



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: USS MinnTac NPDES-LINE 3 Wkly

Pace Project No.: 1284584

Date: 03/29/2017 12:43 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1284584001 1284584002	WS-002 Scrubber Make-Up WS-003 Thickner Overflow	EPA 200.7 EPA 200.7	109087 109087	EPA 200.7 EPA 200.7	109110 109110
1284584001 1284584002	WS-002 Scrubber Make-Up WS-003 Thickner Overflow	EPA 300.0 EPA 300.0	109138 109138		

				12	11	10	9	8	7	6	OT .	4	ω	2	1	ITEM #	Kedaes	D TIONE.	Email:	Mt. Iron,	Address	Compar	Section A	
			ADDITIONAL COMMENTS											WS-003 Thickner Overflow	WS-002 Scrubber Make-Up	SAMPLE ID One Character per box. (A-Z, 0-9/, -) Sample lds must be unique	Neduceron Date Date:	Tax:		Mt. Iron, MN 55768	P.O. Box 417	Company: (ISS Corporation	A Client Information:	Pace Analytical
	POR!	Jan San San San San San San San San San S	RELING											Wī	WT	MATRIX Dinking Water DW Water DW Water DW Water WA Product WP Soli/Solid OL OH Other TS OT Tissue TS MATRIX MATRIX CODE (see valid codes)	r ivjekt #.	arrie:	#	-	Copy To:	Report To: Tom	Section B Required Project Information:	
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER:	00/000	I record	RELINQUISHED BY JAFFILIATION											3-26-50-5-17-17-50-5-58-5-6	709.503	SAMPLE TYPE (G=GRAB C=COMP) COLLECTED START EI DATE DATE DATE DATE DATE		NPDES-LINE 3 Wkly			Woo	Mos	nformation:	CHA The Ch
20	th certifien	7 14:30	ESTEROIS CONTRACTOR											>0875°0	009:00	SAMPLE TEMP AT COLLECTION # OF CONTAINERS Unpreserved H2SO4 HNO3	race rione #.	Pace Project Manager:	Pace Quote:	Address:	Company Name:	Attention:	Section C	CHAIN-OF-CUSTODY / Anal The Chain-of-Custody is a LEGAL DOCUME
ul wash le			ACCEPTED BY / AFFILIATION											×	×	HNO3 HCI NaOH Na2S2O3 Methanol Other Analyses Test LAB FILTERED: SO4		ger: heather.zika@pacelabs.com						
DATE Signed: 3-12-1	COLT	SS 2/2/17				,								×	×	Lab FILTERED: Ca,Mg,Hard	Requested Analysis Fiftered	com,				TENT . USS CORP	NT. HEE COL)# : 128
TEMP in C Received on Ice (Y/N)	3	7 5.5 5.7	7											LF,LF	LF,LF	Residual Chlorine (Y/N)	(NIX)	State / Location		Regulatory Agency			Due Date: 04/05/17	284584
Custody Sealed Cooler (Y/N) Samples Intact (Y/N)		C	SAMPLE CONDITIONS															n		ncy			7	

Pace Analytical*

hold, incorrect preservative, out of temp, incorrect containers)

Document Name:

Sample Condition Upon Receipt Form

Document No.:

F-VM-C-001-Rev.10

Document Revised: 15Mar2016

Page 1 of 1

Issuing Authority:

Pace Virginia, Minnesota Quality Office

Sample Condition Client Name: Upon Receipt			Project	#:
USS Corporativ				
Courier: Fed Ex UPS	USPS	•	Client	
Commercial Pace Tracking Number:	Other	:		
Custody Seal on Cooler/Box Present? Yes \[\sum_{Yes} \]	No	Seals I	ntact? [Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble Ba	ags \(\sum_N	lone [Other:_	Temp Blank? Yes No
Thermometer Used: \(\simeg\) 140792808	Type of			Blue None Samples on ice, cooling process has begun
Cooler Temp Read °C: 3.2 Cooler Temp Correction Fac	Corrected °	c: 3	.5	Biological Tissue Frozen? Yes No NA d Initials of Person Examining Contents: Comments:
Chain of Custody Present?	Yes	□No	□N/A	1.
Chain of Custody Filled Out?	Yes	□No	□N/A	2.
Chain of Custody Relinquished?	Yes	□No	□N/A	3.
Sampler Name and Signature on COC?	Yes	□No	□N/A	4.
	2			
Samples Arrived within Hold Time?	Yes	□No	□N/A	5. If Fecal:
Short Hold Time Analysis (<72 hr)?	Yes	No	□N/A	6.
Rush Turn Around Time Requested?	Yes	No	□N/A	7.
Sufficient Volume?	Yes	□No	□N/A	8.
Correct Containers Used?	Yes	□No	□N/A	9.
-Pace Containers Used?	Yes	No	□N/A	
Containers Intact?	Yes	□No	□N/A	10.
Filtered Volume Received for Dissolved Tests?	Yes	No	□N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	Yes	□No	□N/A	12.
-Includes Date/Time/ID/Analysis Matrix: W+				
All containers needing acid/base preservation will be checked and documented in the pH logbook.	□Yes	□No	∑ N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	Yes	No	₩N/A	13.
Headspace in VOA Vials (>6mm)?	□Yes	No	□N/A	14.
Trip Blank Present?	□Yes	□No	□N/A	15.
Trip Blank Custody Seals Present?	□Yes	No	TN/A	
Pace Trip Blank Lot # (if purchased):				
CLIENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No
Person Contacted:			[Date/Time:
Commants/Pasalution				
FECAL WAIVER ON FILE Y N		TEM	PERATUI	RE WAIVER ON FILE Y N
Project Manager Review:	100 a compliance	samples,	a copy of th	Date: 3/3/17 his form will be sent to the North Carolina DEHNR Certification Office (i.e. ou